

Reply Under 37 C.F.R. § 1.116 – Expedited Procedure

Serial No.: 10/042,556

Examiner: Daniel Swerdlow

Amendment to the Claims

1. (Twice Amended) An apparatus for providing power to a plurality of line driver devices in a communication system; each respective line driver device having a respective output for driving a communication loop of said communication system ; the apparatus comprising:
 - (a) a power supply device coupled with each of said line driver devices for providing power supply tailored to each said line driver devices ; and
 - (b) a controller coupled with said power supply and having an input for receiving a signal indicative of an operating condition for said communication loops, said controller further adapted to determine a minimum drive power for a respective communication loop responsive to receiving an operating condition signal thereof and cooperative with said power supply device for providing power to an associated line driver device for effectuating said minimum drive power, wherein said communication loop operating condition is determined during a startup training cycle.
2. (Previously Amended) An apparatus as recited in Claim 1 wherein said control device is a respective control device coupled with each said line driver devices .
3. (Previously Amended) An apparatus as recited in Claim 1 wherein said control device is a single control device coupled with each said line driver devices .
4. (Previously Amended) An apparatus as recited in Claim 1 wherein said power supply device is a respective power supply device coupled with each said respective line driver device.
5. (Previously Amended) An apparatus as recited in Claim 1 wherein said power supply device is a single power supply device coupled with each said respective line driver device.
6. (Cancel).

135733

Page 2

Reply Under 37 C.F.R. § 1.116 – Expedited Procedure

Serial No.: 10/042,556

Examiner: Daniel Swerdlow

7. (Cancel).
8. (Previously Amended) An apparatus as recited in Claim 1 wherein said controller is further adapted to poll each communication loop for determining said operating condition .
9. (Previously Amended) An apparatus as recited in Claim 1 wherein said operating condition includes data rate, loop length, and load requirements .
10. (Twice Amended) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system; each selected line driver device being coupled with a respective communication loop and providing a respective minimum operational voltage to said respective communication loop; the apparatus comprising:
 - (a) a control means for controlling supply voltage to said selected line driver devices; said control means being coupled with said selected line driver devices, said control means further for receiving an operating condition for said respective communication loops and responsive thereto for determining a corresponding line driver device voltage for effectuating said respective minimum operational voltage, wherein said communication loop operating condition is determined during a startup training cycle; and
 - (b) a power supply means; said power supply means being coupled with said control means and with said selected line driver devices; said power supply means cooperating with said control means to deliver said corresponding line driver device voltage to respective said selected line driver devices.
11. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is a respective control device coupled with each said respective selected line driver device.

135733

Page 3

Reply Under 37 C.F.R. § 1.116 – Expedited Procedure

Serial No.: 10/042,556

Examiner: Daniel Swerdlow

12. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is a single control device coupled with each said respective selected line driver device.
13. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said power supply means is a respective power supply device coupled with each said respective selected line driver device.
14. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said power supply means is a single power supply device coupled with each said respective selected line driver device.
15. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 11 wherein said power supply means is a respective power supply device coupled with each said respective selected line driver device.
16. (Cancel).
17. (Previously Amended) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is further adapted to poll each communication loop for determining said operating condition .
18. (Previously Amended) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said operating condition includes data rate, loop length, and load .

135733

Page 4

Reply Under 37 C.F.R. § 1.116 – Expedited Procedure

Serial No.: 10/042,556

Examiner: Daniel Swerdlow

19. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is coupled with said selected line driver devices via individual control lines intermediate each respective said selected line driver device and said control means.
20. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is coupled with said selected line driver devices via a communication bus intermediate said selected line driver devices and said control means; each respective said selected line driver device being assigned a respective address; said control means identifying information received via said communication bus according to an accompanying respective said selected line driver address.
21. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is coupled with said selected line driver devices via individual communication lines intermediate each respective said selected line driver device and said control means.
22. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said control means is coupled with said selected line driver devices via a multiplexer for pollingly determining extant operational voltage for said respective communication loops.
23. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said power supply means is coupled with said selected line driver devices via a control bus intermediate said selected line driver devices and said power supply means; each respective said selected line driver device being assigned a respective address; said power supply means identifying a

135733

Page 5

Reply Under 37 C.F.R. § 1.116 – Expedited Procedure

Serial No.: 10/042,556

Examiner: Daniel Swerdlow

destination for information dispatched via said control bus according to an accompanying respective said selected line driver address.

24. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said power supply means is coupled with said selected line driver devices via individual communication lines intermediate each respective said selected line driver device and said power supply means.
25. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said power supply means is coupled with said selected line driver devices via a multiplexer for pollingly identifying a destination for information dispatched from said power supply means.
26. (Original) An apparatus for providing power to selected line driver devices of a plurality of line driver devices in a communication system as recited in Claim 10 wherein said power supply means further includes a plurality of power supply lines; each said power supply line of said plurality of power supply lines carrying a predetermined power supply potential; said power supply means and said control means cooperating to selectively couple each respective selected line driver device to an appropriate power supply line of said plurality of power supply lines; said appropriate power supply line carrying said power supply potential sufficient to at least match said respective supply voltage.

135733

Page 6